Syllabus

For

Bachelor of Arts / Science Programme

in

GEOGRAPHY

Under Choice Based Credit System (CBCS)

(2023-24 onwards)

of

NEW EDUCATION POLICY-2020

(Semester-I & Semester-II)

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GEOGRAPHY

(A)Major Core Course

Sl.No.	Sem.	Type of Course	Name of Course	Credits	Marks
1.	I	MJC-1 (T)	Geomorphology (T)	4	100
		MJC-1 (P)	Geomorphology (P)	2	100
2.	II	MJC-2 (T)	Climatology and Oceanography (T)	4	100
		MJC-2(P)	Climatology and Oceanography (P)	2	100
3.	III	MJC-3 (T)	Economic Geography (T)	5	100
		MJC-4 (T)	Cartograms, Map Projection and Surveying (T)	3	100
		MJC-4(P)	Cartograms, Map Projection and Surveying (P)	1	100
4.	IV	MJC-5(T)	Human Geography (T)	5	100
		MJC-6(T)	Geography of India and Bihar (T)	5	100
		MJC-7(T)	Statistical Methods in Geography (T)	3	100
		MJC-7(P)	Statistical Methods in Geography (P)	2	100
5.	V	MJC-8(T)	Environmental Geography (T)	5	100
		MJC-9(T)	Cartographic Techniques (T)	3	100
		MJC-9 ()	Cartographic Techniques (P)	2	100
6.	VI	MJC-10(T)	Evolution of Geographical Thought (T)	5	100
		MJC-11(T)	Research Methodology and Field Work	4	100
		MJC-12(T)	Remote sensing and GIS (T)	3	100
		MJC-12(P)	Remote Sensing and GIS (P)	2	100
7.	VII	MJC-13(T)	Regional Planning and Development (T)	5	100
		MJC-14(T)	Social Geography (T)	5	100
		MJC-15(T)	Disaster Management (T)	4	100
		MJC-15(P)	Disaster Management (P)	2	100
8.	VIII	MJC-16(T)	Research Methodology (T)	4	100
			TOTAL	**80**	

(B)Minor Courses to be offered by the Department for students of other Departments of Social Science

Sl.No.	Sem.	Type of Course	Name of Course	Credit	Marks
1.	I	MIC-1(T)	Geomorphology(T)	2	100
		MIC-1(P)	Geomorphology(P)	1	100
2.	II	MIC-2(T)	Climatology and Oceanography(T)	2	100
		MIC-2(P)	Climatology and Oceanography(P)	1	100
3.	III	MIC-3(T)	Economic Geography(T)	2	100
		MIC-3(P)	Economic Geography(P)	1	100
4.	IV	MIC-4(T)	Population Geography(T)	2	100
		MIC-4(P)	Population Geography(P)	1	100
5.	V	MIC-5(T)	Human Geography(T)	3	100
		MIC-5(T)	Geography of India and Bihar(T)	2	100
		MIC-6(P)	Geography of India and Bihar(P)	1	100
6.	VI	MIC-7(T)	Regional Planning and Development (T)	4	100
		MIC-8(P)	Statistical Method in Geography (P)	2	100
7.	VII	MIC-9(T)	Environmental Geography (T)	3	100
		MIC-9(P)	Environmental Geography (P)	1	100
8.	VIII	MIC -10(T)	Remote Sensing and GIS (T)	3	100
		MIC-10(P)	Remote Sensing and GIS (P)	1	100
			TOTAL	**32**	

Note: The Department may reduce the syllabus of the Minor Courses as per the credit distribution. The Department concerned may also decide practical courses.

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(C) Multidisciplinary Courses to be offered

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	I	MDC-1	To be selected from the basket	3	100
2.	II	MDC-2	To be selected from the basket	3	100
3.	III	MDC-3	To be selected from the basket	3	100

Sub Total = 09

(D) Ability Enhancement Courses to be offered

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	I	AEC-1	MIL	2	100
2.	II	AEC-2	Environmental Science	2	100
3.	III	AEC-3d	Disaster Risk Management	2	100
4.	IV	AEC-4	NCC/NSS/NGOs/Social Service/ Scout and Guide/Sports	2	100

Sub Total = 08

(E) Skill Enhancement Courses to be offered

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	I	SEC-1	To be selected from the basket	3	100
2.	II	SEC-2	To be selected from the basket	3	100
3.	III	SEC-3	To be selected from the basket	3	100

Sub Total = 09

(F) Value Added Courses to be offered

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	I	VAC-1	To be selected from the basket	3	100
2.	II	VAC-2	To be selected from the basket	3	100

Sub Total = 06

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	v	INT-1	Summer Internship	4	100

Sl. No.	Sem	Type of Course	Name of Course	Credits	Marks
1.	VIII	RP-1	Research/Dissertation	12	100

Grand Total = 160 Credits

(G) Basket for Multidisciplinary Courses (MDC)

To be decided by Respective Department

(H) Basket for Skill Enhancement Courses (SEC)

(I) Basket for Value Added Courses (VAC)

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GEOGRAPHY

SEMESTER – I

PAPER	:	**MJC-1 (T)**	**Full Marks: 100**
TITLE OF THE PAPER	:	**GEOMORPHOLOGY**	**ESE: 70**
CREDIT	:	**4**	**CIA: 30**

COURSE OBJECTIVES :

1. To understand the concept of various landforms and physical features.
2. To examine and correlate information about Geomorphic processes.
3. To provide a theoretical and empirical framework for understanding landscapes evolution.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Develop an idea of Geomorphology and its fundamental concepts.
2. Understand various theories regarding the origin of the earth.
3. Understand various processes of natural and anthropogenic factors.
4. Understand the role of structure, process and stages in shaping the landforms.
5. Explain different types of Geomorphic processes like weathering and cycle of erosion.
6. Understand the processes of erosion, deposition and resulting landforms.

Unit	Topics	No. of Lectures
I	Nature and Scope of Geomorphology, Origin of the Earth: Nebular, Tidal and Big Bang Theory, Internal Structure of the Earth	10
II	Isostasy: Concept of Airy and Pratt, Wegner's Continental Drift Theory, Plate Tectonics.	10
III	Mountain Building: Theories of Kober and Holmes, Earthquake and Volcanoes.	08
IV	Geomorphic Processes: Weathering and Erosion, Normal Cycle of Erosion-Davis and Penck, Evolution of Landforms:- Glacial, Arid and Karst Topography.	12
Total		**40**

Suggested Readings:-

1. Bridges E.M.(1990),World Geomorphology,Cambridge University Press,Cambridge.
2. Dayal.P. A Text Book of Geomorphology, Rajesh Publication, New Delhi.
3. Gautam Alka(2007), Bhuakriti Vigyan, Rastogi Publications.
4. Hussain M., (2002), Fundamentals of Physical Geography, Rawat Publication, Jaipur.
5. Kale V.S.and Gupta A., (2001), Introduction to Geomorphology,Orient Longman, Hyderabad.
6. Khullar D.R.,(2011) ,Physical Geography, Kalyani Publishers, New Delhi.
7. Monkhouse,F.J.(2009),Principles of Physical Geography,Platinum Publishers,Kolkata.
8. Singh Savindra(2017),Bhoutik Bhougol ,Vashundhara Prakashan,Gorakhpur.
9. Strahler A. N.and Strahler A.H.(2008), Modern Physical Geography,John Wiley & Sons, New York.
10. Thornbury W. D.,(1968) ,Principles of Geomorophology, John Wiley & Sons, New York.

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GEOGRAPHY

SEMESTER – I

PAPER	**:**	**MJC-1 (P)**	**Full Marks- 100**
TITLE OF THE PAPER	**:**	**GEOMORPHOLOGY**	**ESE: 70**
CREDIT	**:**	**2**	**CIA: 30**

COURSE OBJECTIVES :

1. To understand the basic characteristics of Rocks and Minerals for their identification.
2. To understand various land forms, relief and Geomorphic process .
3. To understand Topographical Maps through Conventional signs and Symbols.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the concept and properties of various types of Rocks and Minerals.
2. Identify various types of Rocks and Minerals.
3. Understand the various land forms and other Geomorphic processes'
4. Understand and interpret Topographical maps.

Unit	Topics	No. of Lectures
I	Scale and its types; Rocks and Minerals: Properties and Identification.	04
II	Contour lines, Cross-Sections and Representation of Relief.	08
III	Interpretation of Topographical Maps and Use of Conventional Signs and Symbols.	08
Total		**20**

Suggested Readings:-

1. Singh R.L., Singh Rana P.B. (2020), Elements of Practical Geography, Kalyani Publishers.
2. Sharma J.P.,(1991-92) Prayogik Bhugol (Practical Geography) Rastogi & Company Meerut.
3. Sinha, MMP & Bala, Seema (2017) Ucch Cartography, Rajesh Publication, New Delhi.
4. Sarkar, A (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd. New Delhi.

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GEOGRAPHY

SEMESTER – II

PAPER : **MJC-2 (T)** **Full Marks- 100**
TITLE OF THE PAPER : **CLIMATOLOGY & OCEANOGRAPHY** **ESE: 70**
CREDIT : **4** **CIA: 30**

COURSE OBJECTIVES :

1.To understand different layers and composition of atmosphere.
2.To critically examine various aspects of climate and its classification.
3.To understand oceanic relief features and composition of ocean water.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the structure and composition atmosphere.
2. Understand the various climatic phenomena.
3. Understand causes of climate change.
4. Understand Ocean, its features and properties.

Unit	Topics	No. of Lectures
I	Composition and Structure of Atmosphere, Insolation.	08
II	Air Masses and Fronts- Concepts, Classification and Properties; Tropical and Temperate Cyclones.	10
III	Classification of Climate: Koppen's and Thornthwaite's, Climatic Change: Causes and evidences.	10
IV	Relief of the Ocean floor: Continental Shelf, Slope and Deep Sea Plain, Bottom Relief of Indian and Atlantic Ocean, Factors of Salinity of Oceans.	12
Total		**40**

Suggested Readings:-

1. Barry R. G. and Carleton A. M., (200) *Synoptic and Dynamic Climatology*, Routledge, UK.
2. Barry R. G. and Corley R. J., (1998) *Atmosphere, Weather and Climate*, Routledge, New York.
3. Critchfield H. J., (1987) *General Climatology*, Prentice-Hall of India, New Delhi.
4. Lutgens F. K., Tarbuck E. J. and Tasa D., (2009) *The Atmosphere: An Introduction to Meteorology*, Prentice-Hall, Englewood Cliffs, New Jersey.
5. Oliver J. E. and Hidore J. J., (2002) *Climatology: An Atmospheric Science*, Pearson Education, New Delhi.
6. Trewartha G. T. and Horne L. H., (1980) *An Introduction to Climate*, McGraw-Hill, US.
7. Gupta L. S., (2000) Jalvayu Vigyan, Hindi Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi.
8. Lal, D S., (2006) Jalvayu Vigyan, Prayag Pustak Bhavan, Allahabad.
9. Vatal, M., (1986) Bhautik Bhugol, Central Book Depot, Allahabad.
10. Singh, S (2009): Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad.

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GEOGRAPHY

SEMESTER –II

PAPER : **MJC-2 (P)** **Full Marks- 100**
TITLE OF THE PAPER : **CLIMATOLOGY & OCEANOGRAPHY** **ESE: 70**
CREDIT : **2** **CIA: 30**

COURSE OBJECTIVES :

1. To understand different weather phenomena through graph and diagrams.
2. To get acquainted with different weather measuring instruments. .
3. To understand and analyse spatial weather conditions.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the various weather phenomena.
2. Interpret weather conditions of a place or region.
3. Understand the functions of various weather instruments.

Unit	Topics	No. of Lectures
I	Graphical Representation of Wind Rose, Cyclone and Anticyclone	06
II	Interpretation of Weather Map; Climograph and Hythergraph	06
III	Metrological Instruments - Functions of Wind Vane and Anemometer, Barometer, Dry and Wet Bulb Thermometer	08
Total		**20**

Suggested Readings:-

1. Singh R.L., Singh Rana P.B. (2020), Elements of Practical Geography, Kalyani Publishers.
2. Sharma J.P.,(1991-92) Prayogik Bhugol (Practical Geography) Rastogi & Company Meerut.
3. Sinha, MMP & Bala, Seema (2017) Ucch Cartography, Rajesh Publication, New Delhi.
4. Sarkar, A (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd. New Delhi.

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GEOGRAPHY

SEMESTER – I

PAPER	:	**MIC-1 (T)**	**Full Marks: 100**
TITLE OF THE PAPER	:	**GEOMORPHOLOGY**	**ESE: 70**
CREDIT	:	**2**	**CIA: 30**

COURSE OBJECTIVES :

1.To understand the origin and internal structure of the Earth.

2.To examine various Geomorphic processes.

3.To understand earth movements and related features.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the various Geomorphic Processes.
2. Understand the properties and types of Rocks.
3. Understand Earth movement and its resultant features.

Unit	Topics	No. of Lectures
I	Origin of the Earth- Gaseous Hypothesis, Binary Star Hypothesis; Internal Structure of the Earth	06
II	Geomorphic Process: Weathering and Erosion, Rocks and its Types.	06
III	Plate Tectonics, Earthquake and Volcanoes.	08
Total		**20**

Suggested Readings:-

1.Bridges E.M.(1990),World Geomorphology,Cambridge University Press,Cambridge.

2.Dayal.P. A Text Book of Geomorphology, Rajesh Publication, New Delhi.

3.Gautam Alka(2007), Bhuakriti Vigyan, Rastogi Publications.

4.Hussain M., (2002), Fundamentals of Physical Geography, Rawat Publication, Jaipur.

5.Kale V.S.and Gupta A., (2001), Introduction to Geomorphology,Orient Longman, Hyderabad.

6.Khullar D.R.,(2011) ,Physical Geography, Kalyani Publishers, New Delhi.

7.Monkhouse,F.J.(2009),Principles of Physical Geography,Platinum Publishers,Kolkata.

8.Singh Savindra(2017),Bhoutik Bhougol ,Vashundhara Prakashan,Gorakhpur.

9.Strahler A. N.and Strahler A.H.(2008), Modern Physical Geography,John Wiley & Sons, New York.

10.Thornbury W. D.,(1968) ,Principles of Geomorophology, John Wiley & Sons, New York.

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GEOGRAPHY
SEMESTER – I

PAPER	:	**MIC-1 (P)**	**Full Marks- 100**
TITLE OF THE PAPER	:	**GEOMORPHOLOGY**	**ESE: 70**
CREDIT	:	**1**	**CIA: 30**

COURSE OBJECTIVES :

1.To study Topographical Maps with the help of conventional signs and symbols..

2.To understand contour lines.

3. To understand relief features.

COURSE OUTCOMES :

After completion of the course students will be able to-

1. Understand the concept and properties of various types of Rocks and Minerals.
2. Identify various types of Rocks and Minerals.
3. Understand the various land forms and other Geomorphic processes.

UNIT	Topics	No. of Lectures
I	Conventional signs and Symbols.	05
II	Contour Lines and representation of Relief: Plateau, Conical hill, U-shaped valley, Waterfall.	05
Total		**10**

Suggested Readings:-

1. Singh R.L., Singh Rana P.B. (2020), Elements of Practical Geography, Kalyani Publishers.
2. Sharma J.P.,(1991-92) Prayogik Bhugol (Practical Geography) Rastogi & Company Meerut.
3. Sinha, MMP & Bala, Seema (2017) Ucch Cartography, Rajesh Publication, New Delhi.
4. Sarkar, A (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd. New Delhi.

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GEOGRAPHY
SEMESTER – II

PAPER : **MIC-2 (T)** **Full Marks- 100**
TITLE OF THE PAPER : **CLIMATOLOGY & OCEANOGRAPHY** **ESE: 70**
CREDIT : **2** **CIA: 30**

COURSE OBJECTIVES :

1.To understand atmospheric pressure and wind system.
2. To understand the structure and composition of atmosphere.
3.To develop understanding of relief and properties of Oceans.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the concept of structure and composition of Atmosphere.
2. Understand global atmospheric pressure and wind system.
3. Understand Relief and Properties of Oceans.

Unit	Topics	No. of Lectures
I	Composition and Structure of Atmosphere, Precipitation	06
II	Atmospheric Pressure, Winds and Cyclones	06
III	Relief of the Oceanic Bottom; Salinity of Ocean water	08
Total		**20**

Suggested Readings:-

1. Barry R. G. and Carleton A. M., (200) *Synoptic and Dynamic Climatology*, Routledge, UK.
2. Barry R. G. and Corley R. J., (1998) *Atmosphere, Weather and Climate*, Routledge, New York.
3. Critchfield H. J., (1987) *General Climatology*, Prentice-Hall of India, New Delhi.
4. Lutgens F. K., Tarbuck E. J. and Tasa D., (2009) *The Atmosphere: An Introduction to Meteorology*, Prentice-Hall, Englewood Cliffs, New Jersey.
5. Oliver J. E. and Hidore J. J., (2002) *Climatology: An Atmospheric Science*, Pearson Education, New Delhi.
6. Trewartha G. T. and Horne L. H., (1980) *An Introduction to Climate*, McGraw-Hill, US.
7. Gupta L. S., (2000) Jalvayu Vigyan, Hindi Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi.
8. Lal, D S., (2006) Jalvayu Vigyan, Prayag Pustak Bhavan, Allahabad.
9. Vatal, M., (1986) Bhautik Bhugol, Central Book Depot, Allahabad.
10. Singh, S (2009): Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad.

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SEMESTER –II

PAPER : **MIC-2 (P)** **Full Marks- 100**
TITLE OF THE PAPER : **CLIMATOLOGY & OCEANOGRAPHY** **ESE: 70**
CREDIT : **1** **CIA: 30**

COURSE OBJECTIVES :

1.To understand the importance of weather maps.
2. To understand the use of different weather instruments.
3. To get acquainted with different weather conditions through diagrams and instruments.

COURSE OUTCOMES :

After completion of the course students will be able to -

1. Understand the various weather phenomena.
2. Interpret weather conditions of a place.
3. Understand the functions of various weather instruments.

Unit	Topics	No. of Lectures
I	Interpretation of Weather Maps; Wind Rose	05
II	Functions of Wind Vane, Anemometer, Barometer and Rain Gauge	05
Total		**10**

Suggested Readings:-

1. Singh R.L., Singh Rana P.B. (2020), Elements of Practical Geography, Kalyani Publishers.
2. Sharma J.P.,(1991-92) Prayogik Bhugol (Practical Geography) Rastogi & Company Meerut.
3. Sinha, MMP & Bala, Seema (2017) Ucch Cartography, Rajesh Publication, New Delhi.
4. Sarkar, A (2015) Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd. New Delhi.

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Question Paper Pattern

The Question paper pattern shall consists of three parts-

Part-A- Comulsory- consisting of objective/multiple choice type-
each carrying two marks 10x2= 20 marks

Part-B- Short Answer Type- Four questions to be answered out of six questions-
each carrying five marks 04x5= 20 marks

Part-C- Long Answer Type- Three questions to be answered out of five questions-
each carrying ten marks 03x10= 30 marks

Note- Examinations shall not be held on **OMR Sheet** strictly.

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